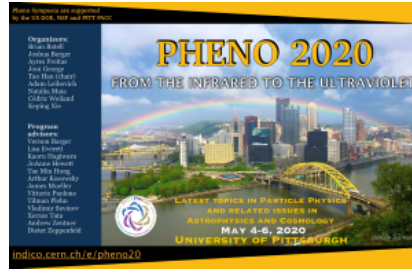


## Phenomenology 2020 Symposium



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# Stop and Gluino Searches at the LHC and Future Colliders

Monday 4 May 2020 15:15 (15 minutes)

The analyses over the new supersymmetric particles by the ATLAS and CMS collaborations have revealed quite sensitive and strict results, which exclusively shape the fundamental parameter space of low scale SUSY models. These analyses usually make some assumptions over the mass spectrum and particle species such as bino-like LSP neutralino, left-handed lightest stop, stau etc. Even though results from such analyses constrain the low scale SUSY models, some of the assumptions may not hold, when the low scale spectrum is obtained in the framework of the SUSY grand unified theories (GUTs). In this talk, we present similar analyses performed within a class of SUSY GUTs and the exclusion curves for the stop and gluino from the current experimental results. We also perform the similar analyses to analyze the mass scales for stop and gluino, which can be probed in near future collider experiments. The work represented is supported by the Scientific and Technological Research Council of Turkey (TUBITAK) Grant no. MFAG-118F090.

## Summary

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